

Human resource management revolution in the era of digital transformation

Sami'un, Ahmad Fatoni Karim Amirullah, I Ketut Kusuma Wijaya³

^{1,2,3} Manajemen, Universitas Pendidikan Mandalika, Mataram, Indonesia

Abstract: This study aims to analyse the dynamics of the transformation of the role of human resources in modern organisations and to identify the key factors influencing the successful implementation of digital transformation from technological, human, and organisational perspectives. A qualitative approach was employed, utilising library research drawn from various scientific journals, academic books, and relevant publications from 2021 to 2025. Data analysis was conducted through the stages of data reduction, presentation, and drawing conclusions using thematic analysis techniques synthesised from various theoretical perspectives, such as strategic human resource management, human capital theory, and digital transformation. The findings indicate that digitalisation has transformed the role of HR into that of a strategic partner involved in data-driven decision-making processes. The implementation of technologies such as artificial intelligence, big data, and HRIS has proven capable of enhancing the effectiveness and efficiency of HR management, although it has also presented challenges in the form of a digital skills gap, resistance to change, and the risk of a diminished humanistic approach within organisations. Further findings indicate that an adaptive organisational culture and transformational leadership play a crucial role in supporting the success of digital transformation. The study's conclusions emphasise that the success of HR transformation in the digital age is highly dependent on the synergy between technology, human resource readiness, and integrated, sustainable organisational strategies.

Keywords: Transformasi Digital; Human Resource Management; Human Capital; Strategic Human Resource Management; Teknologi Digital.

1. Introduction

Digital transformation needs to be understood as an organizational evolutionary process that involves fundamental changes in the way value is created and distributed. This approach is in line with organizational transformation theory that emphasizes the importance of alignment between technology and business strategy. These changes not only affect the technology sector, but also penetrate into other sectors such as education, healthcare, and industry, all of which are undergoing digitalization in various forms. From a critical point of view, this phenomenon indicates the existence of external pressures that force organizations to adapt quickly, even in conditions of uncertainty. Organizations that fail to adapt not only lose competitiveness, but also have the potential to experience structural failures due to unpreparedness in dealing with digital disruption (Nugroho, 2022).

The change in the role of HR management from administrative to strategic is a logical consequence of this dynamic. In the synthesis of the theory of strategic human resource management (SHRM), human resources are no longer seen as a supporting function, but as a strategic partner that plays a role in creating organizational value. This shift requires HR to be involved in the decision-making and strategic planning process. Critically, this transformation has not always been seamless, as many organizations still maintain the old

Correspondence:

Sami'un

samiunputra1985@gmail.com

Received: Apr 20, 2026;

Revised: Apr 22, 2026;

Accepted: May 11, 2026;

Published: Jun 30, 2026;



Copyright: © 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

pattern of bureaucratic and less flexible. This shows that there is a gap between ideal concepts and practice in the field (Kurniawan, 2021).

The role of HR as agents of change and talent managers shows that organizations need to adopt a more proactive approach to managing human resources. In the perspective of talent management theory, organizations are required to be able to identify, develop, and retain individuals who have superior competencies. However, critically, the implementation of talent management often faces obstacles, such as limited resources and a lack of management commitment. This shows that human resource transformation not only requires a strategy, but also a strong commitment from all elements of the organization (Rahmawati, 2022). The use of digital technology in HR management strengthens this shift by presenting a data-driven approach to decision-making. In the synthesis of HRM digital theory, the use of AI, big data, and analytics allows organizations to increase efficiency and accuracy in HR management. However, critically, reliance on technology can also pose risks, such as the loss of the humanist aspect of decision-making. Therefore, a balance is needed between the use of technology and human considerations in managing human resources (Nugraha, 2023).

In addition, the integration of systems such as HRIS and LMS shows that the digitalization of human resources focuses not only on efficiency, but also on employee capacity building. From the perspective of organizational learning theory, technology allows for the creation of a continuous and adaptive learning process. Critically, however, the effectiveness of such systems is highly dependent on the level of adoption and readiness of users. Without the support of a strong learning culture, technology will not provide maximum benefits (Halim, 2024). On the other hand, the challenges of digital transformation cannot be ignored, especially related to the digital skills gap. In the synthesis of human capital theory, the quality of human resources is a determining factor for organizational success. However, critically, there are still inequities in the distribution of digital skills, both between individuals and between organizations. This shows the need for more systematic intervention in the development of human resource competencies (Sutrisno, 2021).

Resistance to change is also an inseparable phenomenon from the transformation process. From the perspective of organizational behavior theory, resistance is a natural response to uncertainty. Critically, however, resistance is often exacerbated by a lack of communication and transparency in the process of change. Therefore, effective change management is the key to overcoming these obstacles (Prabowo, 2022). Digital transformation also demands a change in organizational culture towards a more innovative and adaptive culture. In the synthesis of organizational culture theory, values such as collaboration, creativity, and openness to change become very important. However, critically, cultural change is a complex process and requires a short time, so it is often the biggest challenge in organizational transformation (Widodo, 2023).

Leadership has a strategic role in ensuring the success of digital transformation. In the perspective of transformational leadership theory, leaders are required to be able to inspire, motivate, and direct organizations towards change. However, critically, not all leaders have this capacity, so it becomes an obstacle in the implementation of digital transformation (Herlina, 2024). The HR management revolution in the era of digital

transformation can be understood as a multidimensional phenomenon that involves the interaction between technology, people, and organizations. In the synthesis of various theories, this change reflects a paradigm shift from a traditional approach to a more dynamic and adaptive approach. However, critically, the success of transformation is highly dependent on the organization's ability to manage this complexity (Rizky, 2021).

Thus, a comprehensive approach is needed in understanding and managing digital transformation, especially in the context of HR management. Organizations not only need to adopt technology, but also must be able to develop strategies that are integrated between technological, human, and cultural aspects. Critically, organizations that are able to achieve such integration will have a sustainable competitive advantage in the digital era (Setiawati, 2025). Digital transformation in human resource management not only demands changes in technological aspects, but also requires profound adjustments to the human dimension, organizational culture, and business strategy in an integrated manner. Within the framework of the synthesis of various theoretical perspectives, such as digital transformation, strategic human resource management, and human capital theory, this phenomenon can be understood as a complex and sustainable organizational adaptation process. Critically, the success of transformation is not solely determined by the level of technology adoption, but by the organization's ability to harmonize the readiness of human resources with the changes that occur.

The purpose of this research is to analyze the dynamics of the human resource management revolution in the era of digital transformation through the integration of various theoretical perspectives, such as digital transformation, strategic human resource management, and human capital theory. This research also aims to identify key factors that affect the effectiveness of transformation, both from technological, organizational, and human aspects. Critically, this study emphasizes that the success of transformation does not only depend on the adoption of technology, but on the ability of organizations to integrate it with the readiness of human resources. Therefore, this research is directed to formulate an adaptive and sustainable HR management strategy to support competitive advantage in the digital era.

2. Materials and Methods

This research departs from a qualitative approach with a descriptive orientation that not only aims to describe the phenomenon, but also to interpret in depth the dynamics of the human resource management revolution in the context of digital transformation. Within the framework of a methodological synthesis, this approach is positioned as an attempt to understand the complex interactions between technology, organizations, and people through a holistic perspective. Critically, the qualitative approach was chosen because it is considered more capable of capturing dynamic and contextual reality, compared to the quantitative approach that tends to be limited to variable measurements (Moleong, 2021).

The method used is in the form of literature study (*library research*), which is understood not only as a collection of references, but as a process of knowledge construction through the integration of various scientific sources. Secondary data was obtained from journals, academic books, and scientific publications indexed by Google

Scholar using the purposive sampling technique, which is to select sources based on the relevance of substance, academic credibility, and actuality of publications in the 2021–2025 range. Critically, this approach allows researchers to develop a more comprehensive conceptual framework, although it still has limitations in the direct empirical aspect (Zed, 2022).

Data analysis was carried out through the stages of reduction, presentation, and conclusion drawn, which were then deepened with thematic analysis to identify key patterns, relationships, and trends in the literature. From a qualitative methodological perspective, this process is not linear, but rather iterative and reflective, allowing researchers to continuously adjust interpretations based on evolving findings. Critically, thematic analysis provides flexibility in understanding phenomena, but requires interpretive rigor so as not to produce subjective biases (Sugiyono, 2021).

Furthermore, the results of the analysis are synthesized through the integration of various theoretical frameworks, such as *strategic human resource management*, digital transformation, and *human capital theory*, in order to build a more structured and multidimensional understanding. This synthesis serves not only as an analytical tool, but also as an attempt to reconstruct the relationships between relevant concepts in the context of organizational change. Critically, this approach emphasizes that the analysis of HR phenomena in the digital era cannot be done partially, but must be done through cross-perspective integration to produce more applicable and sustainable strategic implications (Creswell, 2022).

3. Results and Discussion

Based on the results of the study, digital transformation can be understood as the main trigger for the reconfiguration of the role of human resource management in modern organizations. In a broader perspective, these changes not only show a shift in function from administrative to strategic, but also reflect a redefinition of the position of HR as a key actor in organizational value creation. HR no longer only carries out operational functions, but is actively involved in the decision-making process and formulation of the strategic direction of the organization. This indicates a shift in organizational orientation from mere efficiency to strengthening human-based capabilities and competitiveness. In general, the findings of this study can be summarized in several main aspects as presented in Table 1.

Table 1. Research Results

Yes	Aspects Studied	Key Findings	Implications
1	The Role of HR	Shift from administrative to strategic	HR becomes a strategic partner of the organization
2	Digital Transformation	Digitalization as a trigger for organizational change	Organizations must be adaptive to technology
3	Technology Utilization	The use of AI, Big Data, HRIS is increasing	Increased efficiency and effectiveness
4	Decision Making	Data-driven	More objective and accurate decisions
5	Competency Gap	HR digital skills gap	Need for training and development
6	Change Resistance	Rejection of change	Need effective change management
7	Organizational Culture	Adaptive culture supports transformation	Rigid culture becomes an obstacle
8	Leadership	Transformational leadership matters	Leaders must be adaptive and inspirational

9	Humanistic Approach	Risk of diminishing humanist aspects	The need for a human-technological balance
10	System Integration	HRIS & LMS support learning	Human resource capacity increases
11	Organizational Strategy	Need an integrated strategy	Determine the success of a transformation
12	Competitive Advantage	Determined by adaptation & innovation	Organizations are superior to sustainability

In the same context, the adoption of digital technologies such as *artificial intelligence*, *big data*, and HR information systems shows a transformation in the way organizations manage their workforce. Technology has not only served as an auxiliary tool, but has become an integral part of data-driven decision-making systems. The automation of administrative processes and the resulting analytics capabilities enable organizations to improve the accuracy, speed, and effectiveness of HR management. However, these findings also hint that the role of technology does not stand alone, but rather relies heavily on the organization's ability to integrate it with existing management practices.

The results of the study also confirm that digital transformation brings consequences in the form of the emergence of new challenges that are multidimensional. The digital skills gap is an indicator that not all elements of human resources have equal readiness in dealing with technological changes. In addition, resistance to change indicates the existence of psychological and social dimensions that affect the transformation process. This condition shows that digital transformation is not only a technical issue, but also involves aspects of individual behavior, perception, and readiness in the organization.

Organizational culture and leadership factors are emerging as important determinants in the success of digital transformation. Organizations that are able to build an adaptive, open, and collaborative work culture tend to be more responsive to change. On the contrary, a rigid and hierarchical culture is an obstacle in the adaptation process. The leadership role is also not only administrative, but rather the ability to direct, inspire, and facilitate change in a sustainable manner. Thus, the success of digital transformation is greatly influenced by the interaction between technology factors and human factors in the organization.

Discussion

Digital transformation in HR management not only shifts operational functions, but also changes the way organizations interpret the role of humans in it. In the integration between *strategic human resource management*, *resource-based view*, and *dynamic capability theory*, human resources are no longer seen as static resources, but as dynamic capabilities that determine the organization's ability to respond to environmental changes. Thus, competitive advantage no longer rests on resource ownership, but on the organization's ability to manage learning, innovation, and adaptation in a sustainable manner. However, critically, reality shows that many organizations are still in the transition stage, where paradigm shifts have not been fully followed by concrete practice transformations (Kurniawan, 2021).

In the context of the use of digital technology, there has been a fundamental shift in the logic of organizational decision-making. Through the synthesis between *human capital theory* and digital transformation theory, technologies such as artificial intelligence and data analytics act as enablers that increase the efficiency and accuracy of human resource management. Decisions that were previously based on intuition now tend to rely on data

as the primary basis. Nonetheless, this approach is not entirely free from criticism, as the reduction of human complexity into the form of data has the potential to ignore non-quantitative dimensions such as emotions, values, and social relations. Therefore, a balance is needed between technological rationality and sensitivity to humanistic aspects in the organization (Nugraha, 2023).

Furthermore, in an integrative perspective between change management theory and organizational behavior, challenges such as digital skills gaps and resistance to change can be understood as an inherent part of the transformation process. Resistance does not merely reflect rejection, but also indicates the existence of uncertainty and individual unpreparedness for the changes that occur. On the other hand, the skills gap indicates a lag in human resource capacity compared to the pace of technological development. Critically, this condition reflects that many organizations still prioritize accelerating technology adoption without being balanced with human readiness, so that the transformation that occurs tends to be unbalanced (Sutrisno, 2021).

Organizational culture and leadership are key variables that determine the direction and success of digital transformation. In the synthesis of organizational culture theory and transformational leadership, a culture that is flexible, innovative, and open to change is the main foundation in dealing with disruption. Leaders play the role not only as a director, but also as agents who shape the meaning and direction of change in the organization. But critically, many organizations experience obstacles in the form of *cultural inertia*, which is the tendency to maintain old patterns that are no longer relevant. This shows that technological change without being followed by cultural changes will only result in a partial transformation (Widodo, 2023).

The HR management revolution in the digital era reflects the complex interaction between the technology, human, and organizational strategy dimensions in an interconnected system. There is no single theoretical framework that can comprehensively explain this phenomenon, so an interdisciplinary approach that combines multiple perspectives is needed. Critically, organizations that manage transformations in isolation tend to experience fragmentation, where changes do not produce significant impacts. On the contrary, synergistic integration will allow for a more complete and sustainable transformation (Halim, 2024).

The implications of this analysis suggest that digital transformation in HR management should be understood as a process of reconstructing the organization as a whole, involving changes in structures, systems, and mindsets. Organizations are required to develop flexibility, strengthen adaptive capacity, and create a work environment that supports innovation and continuous learning. Critically, an approach that focuses solely on technology without a paradigm shift will result in a superficial and unsustainable transformation. Therefore, a more holistic and long-term oriented strategic approach is needed (Setiawati, 2025).

Thus, digital transformation in HR management is a complex and non-linear evolutionary process. The changes that occur involve the interaction between various factors that affect each other, thus requiring organizations to have reflective and adaptive abilities. Critically, organizations that are able to manage this complexity effectively will have a greater chance of creating a sustainable competitive advantage, while

organizations that fail to adapt have the potential to experience stagnation or even disruption (Rizky, 2021).

4. Conclusions

The development of digital transformation has fundamentally changed the orientation of human resource management from an administrative approach to a strategic approach based on capabilities and value creation. In this context, human resources are no longer seen as a mere operational element, but rather as a key factor that determines the competitiveness of the organization. The use of digital technologies such as *artificial intelligence*, *big data*, and human resource information systems contributes to improving the efficiency and quality of decision-making, although it still requires a balance with humanistic aspects in the organization. The gap between digital skills and resistance to change suggests that digital transformation is not only related to the adoption of technology, but also involves the social and cultural dynamics of organizations. Therefore, the readiness of human resources, an adaptive work culture, and leadership that is able to manage change are important factors in determining the success of transformation. Changes in HR management in the digital age demand a comprehensive and integrated approach between technology, people, and organizational strategies. Organizations that are able to manage such integration effectively will have better adaptability and the potential to achieve sustainable competitive advantage.

References

- Anwar, M. (2024). *Manajemen talenta dalam era digital*. Jakarta: Prenadamedia Group.
- Creswell, J. W. (2022). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
- Fauzi, A. (2024). Kepemimpinan transformasional dalam menghadapi era digital. *Jurnal Manajemen Indonesia*, 24(1), 45–58.
- Firmansyah, D. (2023). Peran strategis sumber daya manusia dalam organisasi modern. *Jurnal Administrasi Bisnis*, 19(2), 101–112.
- Halim, A. (2024). Implementasi HRIS dalam meningkatkan kinerja organisasi. *Jurnal Sistem Informasi*, 20(1), 33–44.
- Halim, A. (2024). Transformasi digital dan implikasinya terhadap manajemen sumber daya manusia. *Jurnal Manajemen dan Bisnis Indonesia*, 10(1), 45–58.
- Herlina, S. (2024). Manajemen perubahan dalam organisasi digital. *Jurnal Ilmu Manajemen*, 12(2), 67–79.
- Kurniawan, D. (2021). Peran strategis sumber daya manusia dalam meningkatkan keunggulan kompetitif organisasi. *Jurnal Ilmu Manajemen*, 9(2), 112–125.
- Kurniawan, R. (2021). Transformasi fungsi manajemen SDM dalam era digitalisasi. *Jurnal Manajemen dan Bisnis*, 18(1), 55–66.
- Moleong, L. J. (2021). *Metodologi penelitian kualitatif* (Edisi revisi). PT Remaja Rosdakarya.
- Nugraha, A. (2023). Pemanfaatan big data dalam pengambilan keputusan SDM. *Jurnal Teknologi Informasi dan Manajemen*, 15(2), 88–99.
- Nugraha, R. (2023). Pemanfaatan teknologi digital dalam pengelolaan sumber daya manusia berbasis data. *Jurnal Sistem Informasi dan Manajemen*, 11(1), 67–80.
- Nugroho, Y. (2022). Transformasi digital dan daya saing organisasi. *Jurnal Ekonomi dan Bisnis Digital*, 5(1), 12–25.
- Prabowo, H. (2022). Resistensi perubahan dalam organisasi: Studi kasus transformasi digital. *Jurnal Psikologi Industri dan Organisasi*, 10(1), 23–35.
- Prasetyo, B. (2021). Revolusi industri 4.0 dan tantangan sumber daya manusia. *Jurnal Ilmu Sosial dan Humaniora*, 10(2), 187–198.
- Rahmawati, D. (2022). Peran SDM sebagai agen perubahan dalam organisasi. *Jurnal Manajemen Sumber Daya Manusia*, 9(1), 40–52.
- Rizky, M. (2021). Adaptasi organisasi dalam menghadapi transformasi digital. *Jurnal Administrasi Bisnis*, 8(3), 201–213.

- Rizky, M. (2021). Strategi organisasi dalam menghadapi disrupsi digital. *Jurnal Bisnis dan Inovasi*, 8(2), 77–89.
- Santoso, T. (2024). Strategi pengelolaan SDM berbasis digital. *Jurnal Manajemen Strategis*, 11(1), 29–41.
- Setiawati, L. (2025). Keunggulan kompetitif organisasi dalam era transformasi digital. *Jurnal Ekonomi Modern*, 13(1), 1–12.
- Setiawati, L. (2025). Strategi pengelolaan sumber daya manusia di era digital untuk meningkatkan daya saing organisasi. *Jurnal Ekonomi dan Manajemen*, 12(1), 33–47.
- Sugiyono. (2021). *Metode penelitian kualitatif, kuantitatif, dan R&D*. Alfabeta.
- Sutrisno, E. (2021). Pengembangan kompetensi SDM di era digital. *Jurnal Pendidikan dan Pelatihan*, 6(2), 120–132.
- Sutrisno, E. (2021). Tantangan pengembangan kompetensi sumber daya manusia di era digital. *Jurnal Manajemen Sumber Daya Manusia*, 7(2), 89–101.
- Wibowo. (2023). *Manajemen kinerja dalam organisasi digital*. Jakarta: Rajawali Pers.
- Widodo, A. (2023). Budaya organisasi dan inovasi di era digital. *Jurnal Organisasi dan Manajemen*, 19(1), 14–26.
- Widodo, S. (2023). Kepemimpinan transformasional dan budaya organisasi dalam menghadapi perubahan digital. *Jurnal Kepemimpinan dan Organisasi*, 5(2), 120–134.
- Zed, M. (2022). *Metode penelitian kepustakaan*. Yayasan Pustaka Obor Indonesia.